

K.7
12/19/91

128680

**CONSTRUCTION REPORT
SEDIMENT REMOVAL INTERIM
RESPONSE ACTION**

**Summit National Superfund Site
Deerfield Township of Portage County, Ohio**

PRINTED ON

DEC 19 1991

December 19, 1991

Reference No. 2372

Mr. Anthony Rutter
Director, Waste Management Division
Remedial Project Manager
U.S. Environmental Protection Agency
230 S. Dearborn Street
Chicago, Illinois
U.S.A. 60604

Mr. Regan S. Williams
State Project Coordinator
Ohio EPA - Division of
Emergency & Remedial Response
2110 East Aurora Road
Twinsburg, Ohio
U.S.A. 44087

Gentlemen:

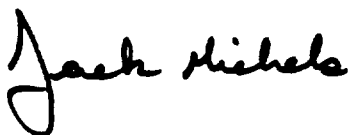
Re: Construction Report
Sediment Removal Interim Response Action
Summit National Superfund Site
Deerfield Township of Portage County, Ohio

On behalf of the Summit National Facility Trust, enclosed please find three copies of a Construction Report, prepared by Conestoga-Rovers & Associates, for the Sediment Removal Interim Response Action performed at the Summit National Superfund Site in Deerfield Township of Portage County, Ohio, in October 1991. The Construction Report is being submitted to the United States Environmental Protection Agency and Ohio Environmental Protection Agency for approval and formal acceptance of the sediment removal interim response action.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES



Jack Michels, P. Eng.

JM/ec/13
Encl.

December 19, 1991

Reference No. 2372

- 2 -

c.c.: Peter Felitti - USEPA Regional Counsel (1 copy)
Assistant Attorney General, Land and Natural Resources Division,
US Department of Justice (1 copy)
Richard McAvoy - Black & Veatch Waste Science Technology, Inc. (1 copy)
Supervisor, Office of Corrective Action, Director, State,
Ohio Environmental Protection Agency (1 copy)
Christopher Korleski, Attorney General, State of Ohio (1 copy)
William Falsgraf, Esq. (1 copy)
Thomas T. Terp, Esq. (1 copy)
Gary W. Gifford (1 copy)
Patrick S. Steerman (1 copy)
Kenneth A. Walanski (1 copy)
Douglas G. Haynam (1 copy)
Rick Shepherd (1 copy)
Steve Whillier (1 copy)

**CONSTRUCTION REPORT
SEDIMENT REMOVAL INTERIM
RESPONSE ACTION**

**Summit National Superfund Site
Deerfield Township of Portage County, Ohio**

**DECEMBER 1991
REF. NO. 2372 (23)**

CONESTOGA-ROVERS & ASSOCIATES

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 STATEMENT OF WORK.....	4
3.0 HEALTH AND SAFETY.....	6
4.0 MOBILIZATION AND SITE PREPARATION	8
5.0 SEDIMENT REMOVAL AND STOCKPILING.....	11
6.0 DEMOBILIZATION AND CLOSEOUT	14
7.0 PROJECT MANAGEMENT/OVERSIGHT.....	15

LIST OF FIGURES

		<u>Following Page</u>
FIGURE 1.1	PERIMETER-SITE DITCH AND IMPOUNDMENT SEDIMENT REMOVAL AREAS	1
FIGURE 2.1	SITE PLAN - SEDIMENT REMOVAL ACTIVITIES	5

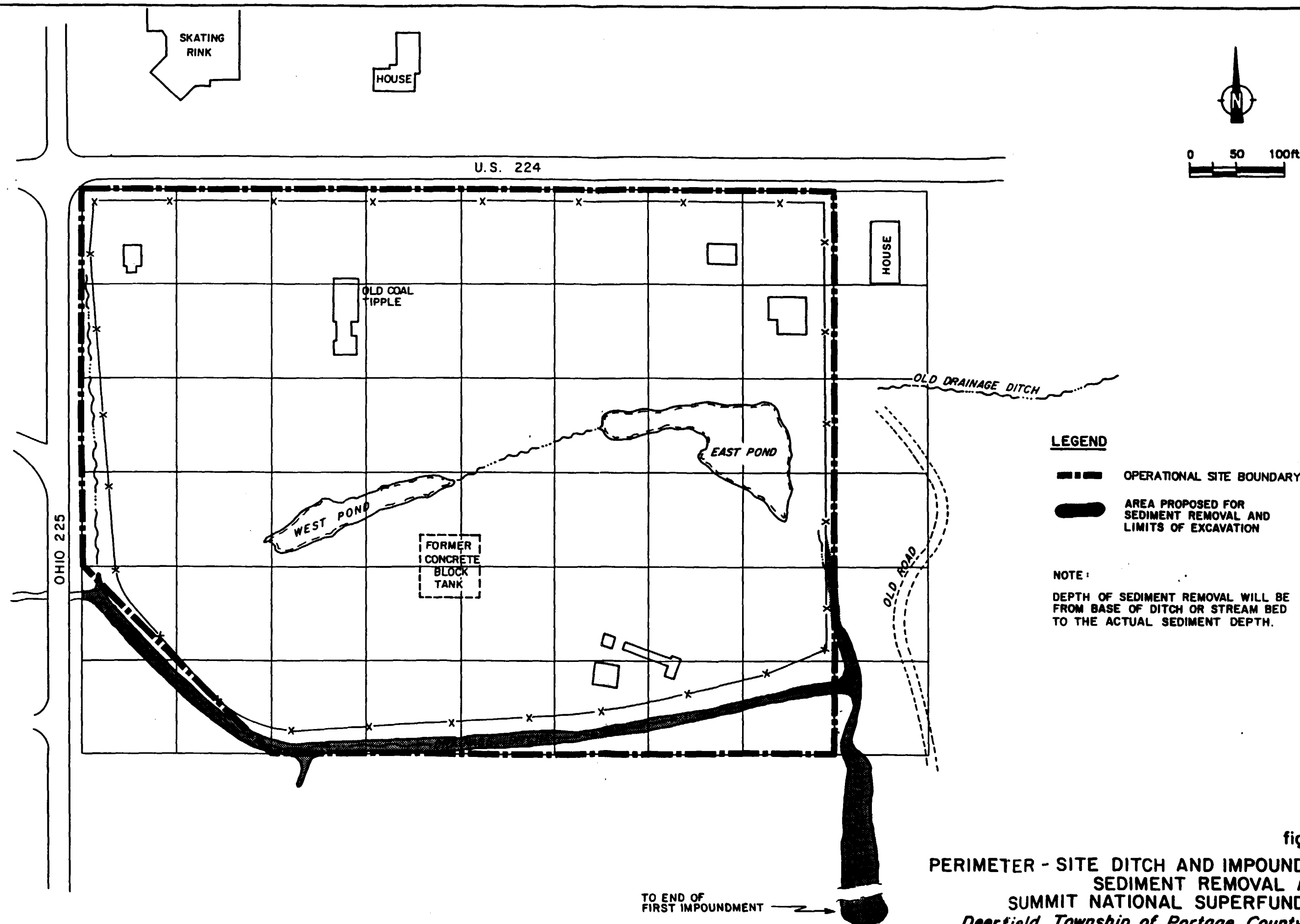
LIST OF APPENDICES

APPENDIX A	LETTERS OF APPROVAL
APPENDIX B	SITE-SPECIFIC HEALTH AND SAFETY PLAN
APPENDIX C	RESULTS OF AIR MONITORING

1.0 INTRODUCTION

As specified in Appendix A, Section 3.3 of the Statement of Work (SOW) for the Summit National Superfund Site (Site) in Deerfield Township of Portage County, Ohio, sediments from the drainage ditch along the south and east perimeters of the Site and from the first impoundment southeast of the Site, as shown on Figure 1.1, were to be removed during the Remedial Action (RA) for the Site. Furthermore, as specified in Appendix A, Section 3.4.1 of the SOW, prior to removal of the sediments from the perimeter-Site ditches and impoundment, the ditches and impoundment were to be dewatered by temporarily damming the ditches and impoundment, both west and east of the Site, to prevent surface water inflow to the sediment removal area. All water pumped from the ditches and impoundment during the dewatering operations were to be treated at a groundwater treatment plant proposed to be constructed on Site during the initial phases of the RA, prior to discharge to surface water.

The low rainfall in the vicinity of the Site during the summer of 1991 created an ideal situation for the removal of the sediments, as the surface impoundment and drainage ditches did not contain any free water. Therefore, dewatering with subsequent treatment would not be required if the sediments were removed from the drainage ditches and impoundment during this dry period. Also, the dry conditions created ideal access routes and equipment working conditions for removal of the sediments.



CRA

2372-2/12/91-23-0

As stated in the SOW, the sediments removed from the off-Site surface impoundment and ditches would not require treatment, but were to be placed on Site under the Site cap proposed as the final phase of the RA. Therefore, the sediments could be excavated during the 1991 dry period and temporarily stockpiled on Site in areas of the Site that would not require soil removal and treatment during the RA. Final placement of the sediments under the Site cap then would be performed during the final phase of the RA.

Removal of the perimeter Site sediments in 1991 within several months of the effective date of the Consent Order for the Site (June 11, 1991), also would publicly demonstrate a positive step towards implementation of the RA at the Site. In addition, the interim response action effectively would remove the contaminants from the off-Site areas and secure the sediments within the boundary of the Site.

Based on the above, the Summit National Facility Trust (SNFT) implemented an interim response action at the Site during the period of September 30 to October 29, 1991, to remove the sediments from the drainage ditches along the south and east perimeters of the Site and from the impoundment southeast of the Site. Sediment removal was conducted by Enroserv Midwest, Inc. as the Contractor, and Conestoga-Rovers & Associates (CRA) as the project managers, in accordance with an Interim Response Action Sediment Removal Work Plan (Work Plan) negotiated by SNFT, the United States Environmental Protection Agency (USEPA) and the Ohio Environmental Protection Agency (OEPA). The Work Plan was conditionally approved by USEPA in a letter dated September 20, 1991 and by OEPA in a

letter dated September 17, 1991, and confirmed by SNFT in a letter dated September 20, 1991, copies of which are included as Appendix A.

This Construction Report presents an overview of the interim response action that was implemented at the Site to remove sediments from the perimeter-Site drainage ditches and impoundment during the 1991 dry period. The Construction Report is organized as follows:

- (i) Section 1 presents the introduction and format of the Construction Report;
- (ii) Section 2 presents the Statement of Work for the interim response action as defined in the Work Plan;
- (iii) Section 3 presents the health and safety requirements implemented during the interim response action;
- (iv) Section 4 presents the mobilization and Site preparation activities;
- (v) Section 5 presents the sediment removal and stockpiling activities;
- (vi) Section 6 presents the demobilization and closeout activities; and
- (vii) Section 7 presents the project management procedures.

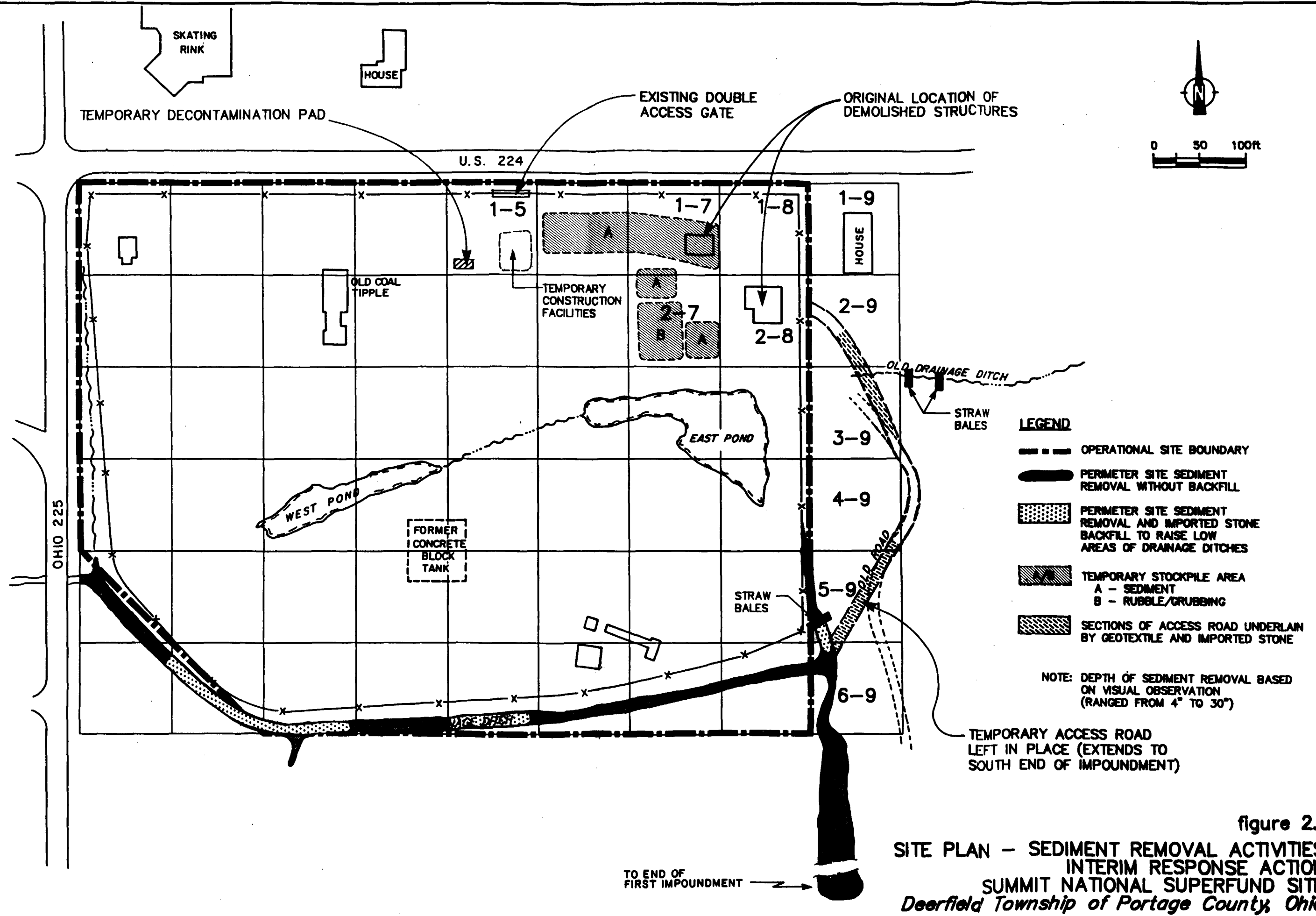
This Construction Report is being submitted to USEPA and OEPA for formal approval, to confirm that sediment removal from the perimeter-Site drainage ditches and impoundment have been completed pursuant to the requirements of the Consent Order.

2.0 STATEMENT OF WORK

The interim response action for removal of sediments from the perimeter-Site drainage ditches and impoundment was based on the requirements of Appendix A, Section 3.3 of the SOW, and consisted of the following activities:

- i) obtaining access agreements for affected off-Site properties;
- ii) provision of a personnel decontamination facility, health and safety equipment, and a temporary on-Site equipment decontamination facility;
- iii) demolition of two on-Site buildings and clearing and grubbing the on-Site sediment stockpile area;
- iv) removal of vegetation and discarded rubbish from the drainage ditches and impoundment, and stockpiling on Site;
- v) temporary dismantling of a portion of the East perimeter-Site security fence for access to the Site;
- vi) construction of an access road from the off-Site drainage ditches to the on-Site temporary stockpile area;
- vii) excavation and removal of perimeter-Site drainage ditch and impoundment sediments;
- viii) temporary stockpiling of removed sediments on Site;
- ix) covering stockpiled sediments with polyethylene sheeting;
- x) decontamination of all plant and equipment utilized for the interim response action at the temporary on-Site decontamination facility; and
- xi) reinstating the East perimeter-Site security fence.

The siting of the temporary construction facilities, access and access roads, and the temporary sediment stockpile area are illustrated on Figure 2.1.



3.0 HEALTH AND SAFETY

All personnel involved with the on-Site implementation of the interim response action were required to comply with a Site-specific Health and Safety (HSP) developed by the Contractor (presented as Appendix B). The Site-specific HSP was based on the requirements of the Health and Safety Plan (HSP) presented in the Draft Remedial Design (RD) Work Plan submitted to USEPA and OEPA on July 26, 1991, and was approved by CRA's Certified Industrial Hygienist, prior to commencement of the sediment removal activities.

Level C Personnel Protective Equipment (PPE), as specified in the RD Work Plan, was required for all interim response action activities. On completion of the interim response action, all plant and equipment utilized for removal of sediments were decontaminated at the temporary decontamination facility located on Site. Used PPE was placed in 6-mil plastic bags and secured on Site under the sediment stockpile cover pending disposal during the RA. Equipment and personnel decontamination washwaters were contained and stored in an on-Site wastewater storage tank, pending treatment during the pilot-scale groundwater treatability study scheduled to be conducted at the Site in November/December 1991 as a pre-design activity.

Air monitoring, as required by the HSP, was conducted on a daily basis during the sediment removal activities. The results of the air monitoring, presented as Appendix C, indicate that organic vapor readings

did not exceed more than 0.6 parts per million in the breathing zone above background readings during the sediment removal activities.

As required by the HSP, a daily sign in/out log was maintained at the Site for the duration of the interim response action.

4.0 MOBILIZATION AND SITE PREPARATION

Prior to commencing the interim response action, SNFT obtained access agreements from the following off-Site property owners affected by the sediment removal activities:

- i) Earl and Marguerite Richmond for sediment removal from the south perimeter drainage ditch and impoundment; and
- ii) Alvin M. and Glenna M. Watson for east perimeter drainage ditch sediment removal and access requirements.

Mobilization of contractor personnel and equipment to the Site commenced on September 30, 1991, including the personnel decontamination facility and support trailers, and the sediment excavation, transportation and stockpiling equipment.

Grid 1-5 was selected as the support area and Grids 1-6, 1-7, 1-8, 2-7 and 2-8 were selected for location of the temporary sediment stockpile area (see Figure 2.1), since these areas were located nearest to the sediment removal areas and would not require soil removal or treatment during the RA. Only the northern 30 feet of Grid 2-8 was suitable for sediment stockpiling as the East Pond extends northward into Grid 2-8.

Demolition of two on-Site buildings from Grids 1-7 and 2-8, and clearing and grubbing the support area and the on-Site sediment

stockpile area (Grids 1-5, 1-6, 1-7, 1-8, 2-7 and 2-8) commenced on October 1, 1991. Demolition debris and vegetation were stockpiled on Grid 2-7.

Construction of the off-Site access road from the Site starting in Grid 2-9 to the intersection of the south and east drainage ditches in Grid 6-9, as shown on Figure 2.1, commenced on October 2, 1991. The access road was constructed by clearing and grubbing vegetation along the alignment of the access road. A section of the access road through the old drainage ditch in Grid 3-9 was stabilized by first laying geotextile material on top of the soft underlying material, then covering the geotextile material with 12 inches of imported stone. Also, in order to gain access to the east and south perimeter drainage ditches, a section of the access road was constructed across Grid 5-9 by first rolling out the geotextile material and covering it with approximately four inches of imported stone, as shown on Figure 2.1.

Two rows of straw bales were installed in the old drainage ditch east of the access road, as shown on Figure 2.1, to contain any silt that may runoff from the access road if heavy rainfall was to occur during the sediment removal activities.

A portion of the East perimeter-Site security fence, as required for access from the Site to the drainage ditches and impoundment, was carefully dismantled and rolled back during each work day. At the end of each days activities, the fence fabric was rolled back into place and secured, thus maintaining access restriction to on-Site areas.

Brush and small trees were removed from the sediments in the drainage ditches and debris was removed from the sediments in the impoundment as excavation of sediments progressed. These materials were transported to and stockpiled on Site adjacent to the sediment stockpile.

5.0 SEDIMENT REMOVAL AND STOCKPILING

Sediment removal from the drainage ditch along the east perimeter of the Site commenced on October 3, 1991, using a tracked 215 Cat excavator. Sediments were loaded directly into a Mack DM-600 dump truck and transported to the on-Site stockpile area where stockpiling of sediments commenced in Grid 1-6. Excavation commenced where the east drainage ditch exits the fenced area of the Site and proceeded downstream (south) towards the intersection of the south and east drainage ditches (see Figure 2.1). Sediment removal depth from the east drainage ditch was based on visual observations, ranging from six inches to two feet, and was completed on October 4, 1991.

Sediment removal from the drainage ditch at the south perimeter of the Site commenced on October 4, 1991, starting at the intersection of the east and south perimeter drainage ditches, and proceeding upstream (west) towards the southwest corner of the Site (see Figure 2.1). Sediments were loaded directly into the dump truck and transported to and stockpiled on Site. Sediment removal depth from the south drainage ditch was based on visual observations, ranging from four inches to two and one-half feet, and was completed on October 12, 1991.

Sediment was removed from the first 100 feet of the impoundment south of the intersection of the south and east perimeter drainage ditches on October 9, 1991. Saturated blue clay in excess of six feet in depth then was encountered underlying the sediment, making it impossible for the excavator to proceed further into the impoundment. Further

investigations of the saturated blue clay underlying the sediment indicated the clay to be present beneath the sediment for the full extent of the impoundment at depths ranging from six to 12 feet. It was therefore necessary to construct a geotextile and stone access road in the impoundment as excavation of sediments in the impoundment progressed. Also, a larger excavator (Hitachi 270) with an extended reach was utilized for the remainder of the sediment removal from the impoundment. During sediment removal from the impoundment, the excavator would remain on the geotextile and stone access road and excavate sediment to the full reach of the excavator. The geotextile and stone access road then would be extended into the impoundment in the area of removed sediments on top of the blue clay, to allow the excavator to advance and remove the next reach of sediment, until all sediments were removed from the impoundment.

The modified method of sediment removal from the impoundment commenced on October 19, 1991, with all sediment being removed by October 26, 1991. The depth of sediment removal from the south impoundment was based on visual observations, and ranged from six inches to two feet.

In total, approximately 2,250 cubic yards of debris and sediments were removed from the east and south perimeter drainage ditches and the impoundment during the period September 30, 1991 to October 29, 1991. All of the debris and sediments were stockpiled on Grids 1-6, 1-7 and 2-7 on Site. Grids 1-8 and 2-8 were not required for sediment stockpiling as originally anticipated.

Rainfall rates sufficient to cause surface water runoff did not occur during the perimeter ditch or impoundment sediment removal activities. Therefore, no surface water required collection or treatment and no sediment migration by surface water runoff occurred during the sediment removal activities.

6.0 DEMOBILIZATION AND CLOSEOUT

On completion of sediment excavation and stockpiling activities, the sediment stockpiles were consolidated and covered with 6-mil reinforced polyethylene sheeting. The polyethylene sheeting was secured at the edges of the stockpile and at intervals over the stockpile.

Imported stone, approved by OEPA, was used to fill low lying areas of the south drainage ditch in Grids 6-2, 6-3 and 6-5, as shown on Figure 2.1, on October 26, 1991. Off-Site areas used for access to the perimeter drainage ditches and impoundment were graded, and where possible, returned to their previous condition. The portion of the eastern perimeter security fence removed for access to the drainage ditches was reinstalled and secured. All equipment used for sediment removal, transportation and stockpiling was decontaminated at the on-Site decontamination pad prior to removal from the Site.

During the sediment removal activities, CRA personnel walked the Site perimeter to identify any areas of potential surface water runoff from the Site. Based on the inspection, it was observed that all surface water within the Site flows towards the on-Site ponds. Drainage from the ponds then occurs through the pond outfall treatment structure to the east-perimeter Site drainage ditch. As an additional mitigative measure, a straw bale sediment barrier has been installed in the east perimeter drainage ditch immediately south of the Site security fence, as shown on Figure 2.1, to minimize future sediment migration from the on-Site pond outfall, if any, to the impoundment.

7.0 PROJECT MANAGEMENT/OVERSIGHT

Enroserv Midwest, Inc. of Dayton, Ohio was selected by SNFT as the remedial contractor.

Project management was provided by CRA with a full-time resident engineer observing and directing all activities at the Site.

Oversight for the interim response action was provided by Black & Veatch Waste Science Technology for USEPA, and by OEPA personnel on an intermittent basis. As recorded in the Site's sign in/sign out log, representatives for USEPA and OEPA were on Site on the following days:

<i>Date</i>	<i>USEPA Representative</i>	<i>OEPA Representative</i>
10/1/91		X
10/3/91	X	
10/4/91	X	
10/7/91	X	
10/8/91	X	X
10/17/91	X	
10/18/91	X	X
10/22/91		X
10/23/91	X	
10/24/91	X	X
10/29/91		X

During the sediment removal operations, USEPA and OEPA representatives expressed concurrence with all sediment removal activities, including extent of sediment removal.

APPENDIX A

**LETTERS OF APPROVAL
INTERIM RESPONSE ACTION
SEDIMENT REMOVAL WORK PLAN
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO**

- USEPA, dated September 20, 1991
- OEPA, dated September 17, 1991
- SNFT, dated September 20, 1991



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN STREET
CHICAGO, IL 60604

Stede → 2372
(final copy)

Rec'd CRA

SEP 27 1991

SEP 20 1991

REPLY TO THE ATTENTION OF:

Mr Jack Michels
Conestoga-Rovers and Associates Limited
651 Colby Drive
Waterloo, Ontario, Canada N2V1C2

RE: Summit National Site

Dear Jack:

We have these final comments on the Interim Response Action Sediment Removal Work Plan. When these changes are made to the work plan it is approved.


Item 2. USEPA Comment: Rubbish and vegetation from the drainage ditches should be reduced to minimum volume and managed as "perimeter-site sediments" (see page 11, Section 3.3 of the SOW).

Item 3. USEPA Comment: Change Section 4.1 to Figure 4.1.

Item 12. USEPA Comment: Describe if the equipment decontamination water, mentioned in the first paragraph, will be collected and stored in EPA/DOT approved containers for treatment in the ground water treatment system, as required by the Ohio EPA. Please note Item V, page 2 of Appendix A in the SOW.

If there are any questions please contact me at 312/886-9894.

Sincerely,


Anthony J. Rutter, Acting Chief
OH/MN Section #3

cc: Regan Williams, OEPA, NEDO





State of Ohio Environmental Protection Agency

Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087-1969
(216) 963-1200 (216) 425-9171
FAX (216) 487-0769

FILE COPY 2372

Rec'd CRA
SEP 20 1991

George V. Voinovich
Governor

September 17, 1991

RE: Summit National
Portage County, Ohio
OHD 980609994
267-0779

Jack Michels, P. Eng.
Conestoga-Rovers and Assoc.
651 Colby Drive
Waterloo, Ontario
Canada N2V 1C2

Dear Mr. Michels:

We have reviewed the responses to our comments on the interim Response Action - Sediment Removal Workplan received on September 10, 1991.

We find that the SNFT responses to Comment 2, regarding the frequency of inspections of the covered off-site sediment stockpile; Comment 3, regarding sediment migration control; and Comment 4; site access restrictions during the Interim Response Action, adequately address Ohio EPA's concerns.

With respect to Comment 1, which concerns the disposition of decontamination waters from personnel and equipment decontamination, we find the SNFT response to our comment not entirely satisfactory.

The response states that "water from decontamination of personnel will be collected and stored in suitable containers pending sampling, analysis, and off-site disposal in accordance with all Federal, State and local regulations."

With respect to equipment decontamination, the SNFT response states that "equipment decontamination water would be allowed to drain into the on-site pond." The response then states that "if equipment decontamination water can be collected at the existing decontamination pad, the decontamination water will be stored on-site pending treatment at the pre-design pilot groundwater treatment system or at the groundwater treatment system during the Remedial Action."



Page 2
September 17, 1991
Jack Michels

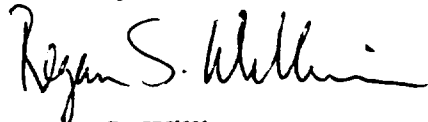
This response does not fully address the Ohio EPA's concern about the disposition of decontamination waters. The Ohio EPA must have written assurance that all decontamination waters, both from personnel and equipment, will be collected and containerized until such time as the waters can be treated either in the pre-design pilot groundwater treatment system or the groundwater treatment system during the RA. This could be accomplished by constructing either a permanent decontamination pad, which could also be used during the pre-design activities and the RA, or a temporary system to contain, collect and store decontamination waters.

The SNFT should insert on page 8, Section 6.0 Demobilization and Closeout, item iv, language to the effect that...All decontamination waters will be collected, containerized and stored on-site pending treatment in the pre-design pilot groundwater treatment system or in the groundwater treatment system during the Remedial Action.

The Ohio EPA is prepared to approve the Interim Response Action - Sediment Removal Workplan as soon as this amendment is made. We are anxious to proceed with this project as soon as possible.

If you have any questions, please contact me at (216) 963-1200.

Sincerely,



Regan S. Williams
State Project Coordinator
Division of Emergency and Remedial Response

RSW:lt

cc: Dan Markowitz, DERR/NEDO
Kathy Davidson, DERR/CO
Fran Kovac, Legal/CO
Gary Gifford, Goodyear
Anthony Rutter, USEPA/Region V
Regional Counsel, USEPA/Region V
Assistant Attorney General, U.S. Dept. of Justice
William Falsgraf, Baker & Hostetler
Thomas T. Terp, Taft, Stettinius & Hollister
Cynthia Lyman, Ohio Attorney General

Consulting Engineers

ORIGINAL-
This Document Previously
Transmitted By Telecopier

FILE COPY ✓

CONESTOGA-ROVERS & ASSOCIATES LIMITED
551 Colby Drive.
Waterloo, Ontario, Canada N2V 1C2
(519) 884-0510

September 20, 1991

Reference No. 2372

Mr. Anthony Rutter
Director, Waste Management Division
Remedial Project Manager
U.S. Environmental Protection Agency
230 S. Dearborn Street
Chicago, Illinois
U.S.A. 60604

Mr. Regan S. Williams
State Project Coordinator
Ohio EPA - Division of
Emergency & Remedial Response
2110 East Aurora Road
Twinsburg, Ohio
U.S.A. 44087

Gentlemen:

Re: Interim Response Action
Sediment Removal Work Plan
Summit National Superfund Site
Deerfield Township of Portage County, Ohio

With respect to the Interim Response Action Sediment Removal Work Plan (Work Plan) for the Summit National Superfund Site (Site) in Deerfield Township of Portage County, Ohio, the Summit National Facility Trust (SNFT) has agreed to incorporate Ohio Environmental Protection Agency's (OEPA) comments dated September 17, 1991 and United States Environmental Protection Agency's (USEPA) comments dated September 20, 1991 into the Work Plan. The SNFT will therefore implement the Interim Response Action to the requirements of the Work Plan, SNFT's responses dated September 9, 1991 to OEPA and USEPA initial comments on the Work Plan and OEPA and USEPA above referenced comments dated September 17, 1991 and September 20, 1991, respectively.

Based on the above, the SNFT has issued a Notice to Proceed to Enroserv Mid-West Inc. of Vandalia, Ohio, the remedial contractor selected by the SNFT to undertake the Interim Response Action. Pending confirmation of favourable weather conditions, removal of sediments from the perimeter Site drainage ditches and impoundment will commence on September 30, 1991.

August 16, 1991

Reference No. 2372

- 2 -

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES



pp Jack Michels, P.Eng.

JM/bjr/2

c.c. Gary W. Gifford
Patrick S. Steerman
Kenneth A. Walanski
Douglas G. Haynam
Richard G. Shepherd
Steve Whillier

APPENDIX B

**SITE-SPECIFIC HEALTH AND SAFETY PLAN
SEDIMENT REMOVAL INTERIM RESPONSE ACTION
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO**

SITE HEALTH AND SAFETY PLAN
INTERIM RESPONSE ACTION PROJECT
FOR
SEDIMENT REMOVAL AND TEST TRENCHES

at

SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO

by

Qsource Environmental Services, Inc.
228 Byers Road, Suite 104
Miamisburg, OH 45342

for

Enroserv Midwest, Inc.
701 Crossroads Court
Vandalia, OH 45377

TABLE OF CONTENTS

	<u>SECTION</u>	<u>PAGE</u>
1.0	GENERAL	
2.0	SITE CHARACTERIZATION AND POTENTIALLY HAZARDOUS COMPOUNDS	
3.0	BASIS	
4.0	RESPONSIBILITIES AND ADMINISTRATION	
5.0	MEDICAL SURVEILLANCE	
6.0	TRAINING	
7.0	WORK AREAS	
8.0	PERSONAL PROTECTIVE EQUIPMENT (PPE)	
9.0	RESPIRATORY PROTECTION PROGRAM	
10.0	PERSONAL HYGIENE	
11.0	AIR MONITORING	
12.0	COMMUNICATIONS	
13.0	EMERGENCY AND FIRST AID EQUIPMENT	
14.0	EMERGENCY RESPONSE PLAN	
15.0	EQUIPMENT AND PERSONNEL DECONTAMINATION	
16.0	CONTAMINATION MIGRATION CONTROL	
17.0	HEAT AND COLD STRESS	
18.0	INCLEMENT WEATHER	

1.0 GENERAL

The pre-design investigation program to be implemented to satisfy the pre-design requirements, as presented in the Statement of Work (SOW) of the Consent Decree for the Summit National Superfund Site (Site), will involve investigations on the Site and in the immediate vicinity of the Site. During these operations personnel may come in contact with soils, groundwater, sludge and/or sediments which potentially contain hazardous wastes or hazardous waste constituents. To ensure that any direct contact with potentially contaminated material by Site-personnel is minimized, a Site-specific Health and Safety Plan (HSP) has been developed, as presented herein. This HSP has been developed to ensure the following:

- a. That Site-personnel are not adversely exposed to the compounds known to be present on the Site,
- b. that public welfare or the environment are not adversely impacted by off-Site migration of contaminated materials due to work activities at the Site;
- c. compliance with applicable governmental and non-governmental [American Conference of Governmental Industrial Hygienist (ACGIH)] regulations and guidelines. In particular, the amended rules of the Occupational Safety and Health Act for Subpart H of Part 1910 (Title 29 Code of Federal Regulations (CFR) Part 1910.120) will be implemented for all Site work; and
- d. initiation of proper emergency response procedures to minimize the potential for any adverse impact to Site workers, the general public or the environment.

For the purpose of this HSP all sampling and investigative activities performed on Site involving contact with potentially contaminated materials will be considered

contaminated operations requiring personal protective equipment (PPE). Similar activities occurring off Site are considered non-contaminated operations requiring a modified level of PPE from that for on-Site work. A detailed description of the PPE required is presented in Section 8.0

All sampling and investigative activities at the Site will be conducted in accordance with the provisions of this Site-specific HSP. Cost and/or scheduling considerations will not be considered as justification for modifying this plan. A copy of this HSP will be maintained on Site whenever Site activities associated with the pre-design or design activities are in progress.

**SITE CHARACTERIZATION AND POTENTIALLY
HAZARDOUS COMPOUNDS**

A Site-specific data base has been compiled for the Site, as a result of the Remedial Investigation (RI) performed by CH²M Hill on behalf of the United States Environmental Protection Agency (USEPA). The chemicals identified during the RI on or in the vicinity of the Site are summarized in Table 2.1.

Previous investigations at the Site⁽¹⁾ have indicated that a number of volatile and semi-volatile organic as well as inorganic compounds are present in the soils and water on the Site. Surface and sub-surface soils have shown the following ranges of concentrations:

Volatile Organics : up to 49000 ug/kg (dry wt.)

Semi-Volatiles : up to 37000 ug/kg (dry wt.)

Inorganics : up to 50000 mg/kg (dry wt.)

The concentrations of the specific chemicals identified in the streambed sediments are not precisely known, however for the purposes of this plan, all of the compounds are considered to be present at concentrations equivalent to the range of concentrations measured during previous investigations at the site. Appendix B contains the specific chemical hazard evaluation forms for the specific compounds identified on the Site.

Copies of chemical hazard information forms and/or material safety data sheets for each of the chemicals identified in Table 2.1 will be maintained at the Site.

TABLE 2.1

**CHEMICALS IDENTIFIED DURING THE RI ON OR
IN THE VICINITY OF THE SITE (1)
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO**

<i>Volatile Organics</i>	<i>Base Neutral and Acids</i>	<i>Pesticides and PCBs</i>	<i>Inorganics</i>
Vinyl Chloride	N-Nitrosodimethylamine	Diethylphthlate	Aluminum
Methylene Chloride	Phenol	Fluorene*	Antimony
Acetone	Aniline	N-Nitrosodiphenylamine*	Arsenic
Carbondisulfide	1,3-Dichlorobenzene	Hexachlorobenzene	Barium
Benzene	1,4-Dichlorobenzene	Pentachlorophenol	Beryllium
2-Hexanone*	Benzyl Alcohol	Phenanthrene*	Cadmium
4-Methyl-2-Pentanone*	1,2-Dichlorobenzene	Anthracene*	Calcium
Tetrachloroethene	2-Methylphenol	Di-n-Butylphthlate	Chromium
Toluene	4-Methylphenol*	Fluoranthene**	Cobalt
Chlorobenzene	Hexachloroethane	Pyrene*	Copper
Ethylbenzene	Isophorone	Butylbenzylphthalate*	Iron
Styrene	2-Nitrophenol	Benzo (a) Anthracene	Lead
Total Xylenes	2,4-Dimethylphenol*	Bis (2-ethylhexyl) Phthalate	Cyanide
1,1-Dichloroethene	Benzoic Acid	Chrysene	Magnesium
1,1-Dichloroethane	1,2,4-Trichlorobenzene	Di-n-Octyl Phthalate*	Manganese
1,2-Dichloroethane	Naphthalene*	Benzo (b) Fluoranthene**	Mercury
Trans-1,2-Dichloroethene	4-Chloro-3-Methylphenol	Benzo (k) Fluoranthene**	Nickel
Chloroform	Hexachlorocyclopentadiene	Benzo (a) Pyrene**	Potassium
2-Butanone*	Dimethylphthalate	Indeno (1,2,3-cd) Pyrene**	Selenium
1,1,1-Trichloroethane	Acenaphthylene	Dibenzo (a,h) Anthracene**	Silver
1,1,2,2-Trichloroethane	Acenaphthene	Benzo (g,h,i) Perylene*	Sodium
Trichloroethene	4-Nitrophenol		Thallium
1,1,2-Trichloroethane	Dibenzofuran*		Tin
			Vanadium
			Zinc

Notes:

- (1) Reproduced from Table 6-2 of the "Final Remedial Investigation Report", Volume 1, Summit National Site, Deerfield, Ohio, dated February 10, 1988.
- * Lacks chronic toxicity data (USEPA, 1986a).
- ** Carcinogenic polynuclear aromatic hydrocarbons (PAHs) for which the potency factor for Benzo (a) Pyrene applies.
- *** Potency factor for polychlorinated biphenyls (PCBs) applies to sum of Aroclors.

3.0 BASIS

The Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29, CFR, Parts 1910 and 1926 (29 CFR 1910 and 1926), including the amended sections in 29 CFR 1910.120 and current Threshold Limit Values (TLVs) as provided by the ACGIH, provide the basis for this HSP. Some of the specifications within this section are in addition to OSHA regulations and reflect the positions of USEPA, the National Institute for Occupational Safety and Health (NIOSH) and the United States Coast Guard (USCG) regarding procedures required to ensure safe operations at potential hazardous waste sites. In addition, the following references have been used as guidelines in developing the HSP:

- a. CERCLA Sections 104(f) and 111(c) (6);
- b. EPA Order 1440.2 - Health and Safety Requirements for Employees Engaged in Field Activities;
- c. EPA Order 1440.1 - Respiratory Protection;
- d. EPA Occupational Health & Safety Manual
- e. EPA Interim Standard Operating Safety Guide (September 1982);
- f. OSHA Standards for General Industry;
- g. NIOSH, Manual of Analytical Methods, Volumes I-VII;
- h. Threshold Limit Values (TLV) for Chemical Substances and Physical Agents in the Work Environment with Intended Changes Adopted by ACGIH;
- i. ANSI Z 88.2-1980, American National Standard, Practices for Respiratory Protection;
- j. Air Sampling Instruments for Evaluation of Atmospheric Contaminants, 6th edition,

1983, American Conference of Governmental Industrial Hygienists;

- k. Appropriate health and safety statutes; and
- l. Superfund Public Health Evaluation Manual, U.S. EPA (October 1986).
- m. Guidelines for the Selection of Chemical Protective Clothing, 3rd Ed., ACGIH, 1987.

Enroserv Midwest, Inc. has designated an individual as Site Safety Officer (SSO) who will oversee all HSP activities during this Interim Response Project. The SSO will be responsible for decisions regarding when work will be stopped or started for health or safety considerations.

RESPONSIBILITIES AND ADMINISTRATION

The Enroserv SSO will supervise the implementation of this HSP and will be responsible for all decisions regarding operations and work stoppages due to health and safety considerations.

The responsibilities of the SSO will be as follows:

- a. be responsible for the implementation of the HSP at the initiation of Site work;
- b. conduct the initial briefing sessions for all on-Site personnel with regard to the HSP and other safety requirements to be observed during field sampling, including:
 1. potential hazards
 2. personal hygiene principles
 3. PPE
 4. respiratory protection equipment usage, and
 5. emergency procedures involving fire and/or medical situations;
- c. review and modify the HSP as more information becomes available concerning the hazardous materials involved, and review all monitoring reports;
- d. supervision and enforcement of safety equipment usage;
- e. supervision and inspection of equipment cleaning;
- f. personnel training in safety equipment usage and emergency procedures;
- g. monitoring of the health and safety program under the direction of an industrial hygienist;
- h. suspend work activity if unsafe working conditions develop;
- i. inform workers of the nature of chemical exposure risk as required by the "Right-to-Know" Law;

- j. recommend medical examination when worker appears to require it; and
- k. coordination of emergency procedures.
- l. maintain a sign in/out log for site control purposes

5.0

MEDICAL SURVEILLANCE

In accordance with requirements detailed in 29 CFR 1910.120 and 29 CFR 1910.134, all Enroserv and subcontractor Site personnel who will come in contact with potentially contaminated materials will have received, within one year prior to starting field activities, medical surveillance by a licensed physician or physician's group.

Medical records for all Site personnel who will come in contact with potentially contaminated materials will be maintained by their respective employers. The medical records will detail the tests that were taken and will include a copy of the consulting physician's statement regarding the tests and the employee's suitability for work. These medical records must be available to the employee or his designated representative upon written request, as outlined in 29 CFR 1910.120, Section (f).

Enroserv will maintain a list of personnel who have been certified as having had all necessary medical examinations prior to commencing work within the contaminated areas. Personnel not obtaining medical certification and who do not have their records up-to-date will not be allowed to perform work within contaminated areas.

Additional medical surveillance will be completed if an individual exhibits poor health or high stress responses due to on-Site activity or when accidental exposure to elevated concentrations of contaminants occurs. Any additional medical surveillance will be at the discretion of the SSO.

6.0**TRAINING**

All Site personnel who will come in contact with potentially contaminated materials must have completed an approved training session in accordance with 29 CFR 1910.120 prior to entering the Site. This training shall consist of a minimum of 40 hours of instruction off Site and three days of actual field experience under direct supervision. The SSO will require and maintain copies of all current training (basic course and refreshers) certificates on-Site during the project.

Prior to commencing Site activities, all personnel shall attend the Site-specific initiation session. This session, conducted by the Enroserv SSO, will be used to instruct the Site personnel as to what the potential Site hazards are, level of PPE required, Site-specific requirements, and the basis of the HSP. At this session it will be confirmed that all on-Site personnel have the 40 hours of training required in accordance with 29 CFR 1910.120. All personnel who attend this session will sign a copy of the Training Acknowledgement Form, shown in Appendix A of this plan.

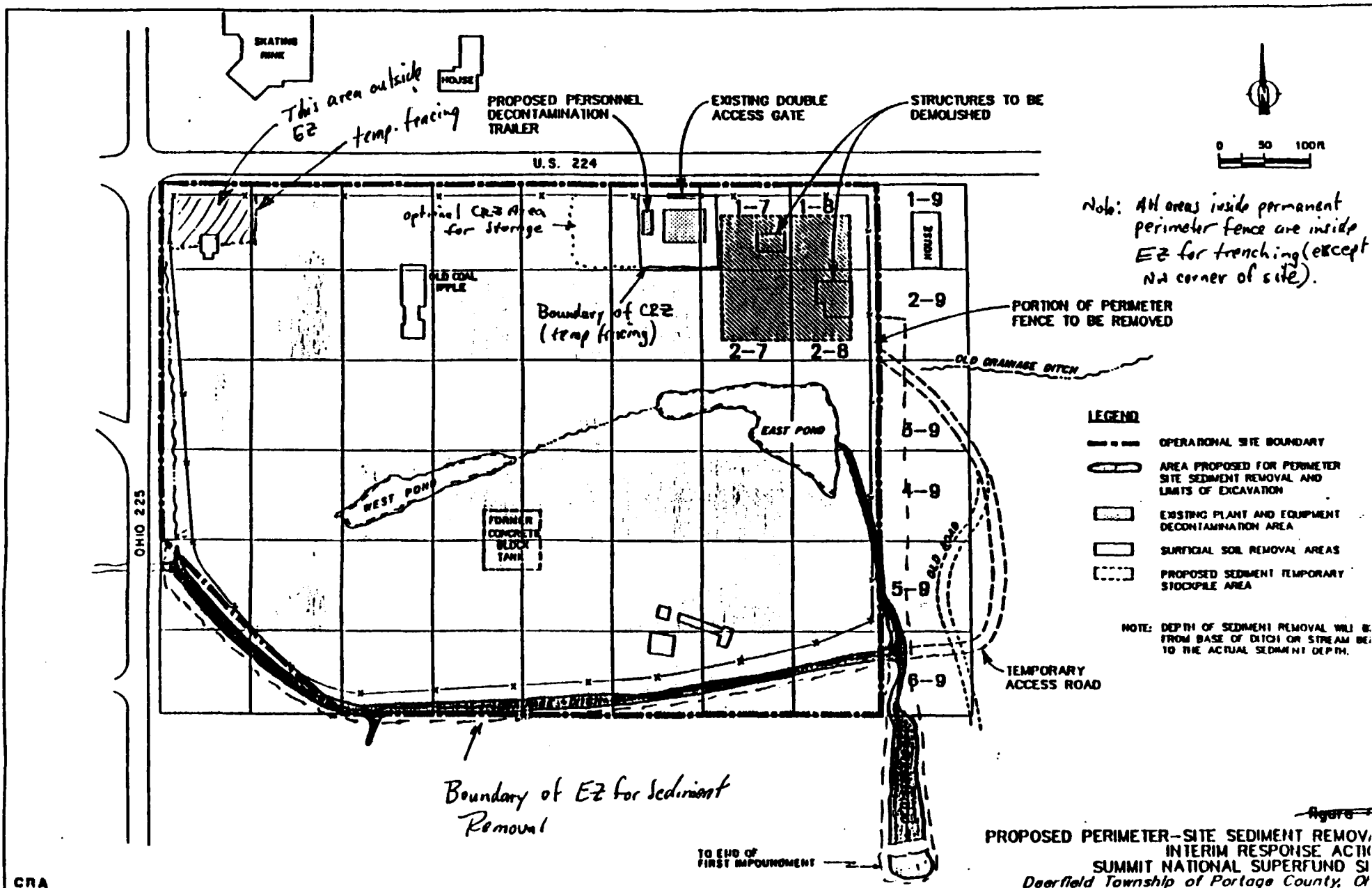
Material Safety Data Sheets for known site contaminants, complete with PELs, TLVs and health hazard data, will be maintained in the Engineer's office trailer and available to any Site employee requesting them. The toxicological basis for this HSP will be discussed during the Site specific initiation session.

WORK AREAS

All Site work zones will be clearly identified in the field prior to initiation of all Site work activities. The establishment of all Site work zone boundaries may be modified by the SSO and/or Site Coordinator. The purpose of establishing these work zones is to limit access to potentially contaminated areas or areas which may cause physical injury to individuals and to prevent the migration of potentially hazardous materials into adjacent non-contaminated areas. These designated work zones are described as follows:

- a. **Exclusion Zone (EZ)** - The EZ will include all areas where potentially contaminated soils, sediments, waters or waste material are located, excavated, removed, transferred, stored, or disposed of and all areas where contaminated equipment or personnel travel including the decontamination area. Specifically the EZ will include all areas designated for sediment removal as shown on Figures 7.1. Sufficient area will be provided for efficient movement of personnel and equipment as well as contaminant control. The EZ will be delineated in the field with fencing, flagging or warning barriers. Access to the EZ will be restricted to personnel who are wearing the proper PPE, have received and passed the required medical examination and have undergone the required health and safety training. A log of entry to and exit from the EZ will be maintained at the Site.
- b. **Contamination Reduction Zone (CRZ)** - The CRZ will be located along the north perimeter of the site at the location of the existing double gate into the Site. The CRZ will contain the personnel and equipment decontamination areas, areas for donning and disposing of PPE, and area for storage of emergency first aid equipment and supplemental safety supplies. Access to the CRZ will be restricted to personnel

Table 7.1



who have received and passed the required medical examination and have undergone the required health and safety training.

- c. **Support Zone (SZ)** - this area is comprised of the remainder of the designated work area at the Site and is defined as being an area outside the zone of significant air, soil or surface water contamination.

The SZ at the Site is shown in Figure 7.1 as:

- a. The area outside the existing Site fence and outside of the temporary barriers for the sediment excavation EZ,
- b. and the area in the northwestern-most 100X100 foot grid at the site where the project trailer and sanitary facilities are located.

The SZ provides:

- a. an entry for personnel, material and equipment to the CRZ,
- b. an exit for decontaminated personnel, materials and equipment from the CRZ,
- c. a storage area for clean safety and work equipment; and
- d. an area for eating, drinking and smoking.

8.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Activities are scheduled at the site that will employ the use of Levels D, C, and possibly B personal protective equipment (PPE) ensembles. The work activities at the site and the anticipated levels of PPE for each are shown in Table 8.1. The use of Level B apparel is not anticipated and will be employed only if site conditions are determined which warrant the upgrade (Section 9.0)

8.1 PPE Ensembles

The following PPE ensembles will be used on the site during the sediment excavation and test trench project:

----- Level B Ensemble -----

- A. **Respiratory Protection:** Full facepiece, supplied-air, operated in the positive pressure mode. The air supply will be from size 1A cylinders of Grade D breathing air mounted on the heavy equipment (operators) or on movable carts (spotters / H&S monitoring personnel). Ingress and egress to the supplied air system will be by means of SCBA.
- B. **Suit:** Coated (saran or polyethylene) disposable suit taped at the gloves and boots.
- C. **Gloves:** Inner: disposable latex; Outer: Lined Nitrile
- D. **Boots:** Inner: Neoprene with steel shank and toe; Outer: Saran or PE coated, disposable.
- E. **Hard Hat** (with face shield)
- F. **Inner Cotton Coveralls, Socks, Underwear**

Table 8.1

**Levels of PPE for Planned Site Activities
Summit National Superfund Site, Portage County, Ohio
Interim Response Action / Sediment Removal**

Work Activity	Anticipated Hazards/Risks	PPE Level Required
<u>Site Preparation:</u> Decon. Pad Construct. Building Demolition Road Construction ⁽¹⁾ Equipment Mobilization	Slip/trip/fall hazards Lifting/moving hazards/back inj. Cuts/Bruises	Level D
<u>Sediment Excavation:</u>	Slip/trip/fall hazards Contact with contaminated soil, sediment, and water Exposure to contaminated dust Exposure to airborne vapors Heavy equipment hazards	Level C (B if air monitoring indicates upgrade)
<u>Test Trench Excavation:</u>	Slip/trip/fall hazards Contact with contaminated soil, sediment, and water Exposure to contaminated dust Exposure to airborne vapors Heavy equipment hazards Contact with unknown waste materials	Level C (B if air monitoring indicates upgrade)

⁽¹⁾ Construction of Temporary Access Road for Sediment Removal

----- Level C Ensemble -----

- A. Respiratory Protection: Full facepiece, air-purifying respirator.
- B. Suit: Disposable, chemical-resistant suit taped at the gloves and boots.
- C. Gloves: Inner: disposable latex; Outer: Lined Nitrile.
- D. Boots: Inner: Neoprene with steel shank and toe.
- E. Hard Hat
- F. Inner Cotton Coveralls, Socks, Underwear

----- Level D Ensemble -----

- A. Suit: Reusable cotton coverall
 - B. Gloves: Leather or Cotton Work Gloves
 - C. Boots: (Leather or Neoprene Work Boots - Steel Toe)
 - D. Hard Hat
 - E. Safety Glasses
- 8.2 General PPE Rules

Additional protective equipment usage guidelines to be implemented include;

- A. All safety glasses used at the site will have integral sideshields. All prescription eyeglasses in use on the Site will be safety glasses. No contact lenses will not be permitted;
- B. All inner latex gloves will be discarded each time a worker leaves the exclusion zone through the personal decontamination unit. All outer nitrile gloves worn on the Site

will be decontaminated and reused.

- C. Respirator cartridges will be changed at least daily or if breakthrough is noted or expected.
- D. All Enroserv onsite personnel will be fit-tested prior to work on the site. Site personnel who must enter the Exclusion Zone will not be permitted to have beards, long sideburns or mustaches that interfere with a proper fit of the respirator;
- E. Duct tape will be used to ensure that disposable coveralls are tightly secured to gloves and boots when personnel are working within the EZ.

8.3 Donning Procedures

Donning procedures for the PPE ensembles identified above are identified in Table 8.2. The procedures identified for donning include provisions for fit testing the respiratory protection each time the facepiece is put on.

Table 8.2

**Donning Procedures for PPE Ensembles
Summit National Superfund Site, Portage County, Ohio
Interim Response Action - Sediment Removal/Test Trenches**

Level B:

- a. Inspect all reusable clothing including outer gloves, boots, and hard hat for signs of damage, cracks, holes, etc. Replace any damaged equipment with new materials. If a glove is damaged, replace the pair.
- b. Put on the chemical-resistant suit, partially zip but do not seal the ankles or wrists.
- c. Put on the inner latex gloves.
- d. Put on the inner boots and tape the suit cuff over the top of the boots. Put on the boot covers and secure with tape (if necessary).
- e. Put on the respirator facepiece and conduct the negative and positive pressure fit test.
- f. Put the hood up on the suit, zip the suit completely and put on a hardhat.
- g. Put on the outer gloves (and middle cotton gloves if applicable) and tape (or have your partner tape) the sleeve of the suit over the glove cuff.
- h. Attach the air hose or tank to the respirator facepiece.

Level C:

- a. Inspect all reusable clothing including outer gloves, boots, and hard hat for signs of damage, cracks, holes, etc. Replace any damaged equipment with new materials. If a glove is damaged, replace the pair.
- b. Put on the suit, zip but do not seal the ankles or wrists.
- c. Put on the inner latex gloves.
- d. Put on the boots and tape the suit cuff over the top of the boots. Put on the boot covers and secure with tape (if necessary).
- e. Put on the respirator with cartridges installed and conduct the negative and positive pressure fit test.
- f. Put the hood up on the suit, zip the suit completely and put on a hardhat.
- g. Put on the outer gloves and tape (or have your partner tape) the sleeve of the suit over the glove cuff.

RESPIRATORY PROTECTION PROGRAM

Enroserv has implemented a respiratory protection program in accordance with 29CFR 1910.134 (OSHA General Industry Standards). A copy of the Enroserv plan is included in Appendix B of this plan. All personnel assigned to work on this site will have had the training required in the standard as well as the required medical surveillance to determine suitability for wearing a respirator. Documentation of all medicals and fit tests will be maintained onsite by the SSO.

The level of respiratory protection chosen for work at the site has been based on the expected concentrations of the known contaminants at the Site and the toxicity of those compounds. Action levels to determine the level of respiratory protection necessary during field activities are based on the concentration of unknown organic vapors measured within the breathing zone. The action levels and appropriate respiratory (and other PPE) protection for Site activities are shown in Table 9.1. The action levels are based on the results of air monitoring conducted within each work area. Monitoring for determination of appropriate respiratory and other PPE protection levels will be conducted according to the procedures established in Section 11.0 of this plan.

If the ambient concentrations of organic vapors are due to identifiable substances, the level of respiratory protection may be altered by the SSO.

Periodic air monitoring data may be obtained to correlate with total organic vapor readings from which the level of respiratory protection may be adjusted.

Table 9.1

**Respiratory Protection Action Levels
Summit National Superfund Site, Portage County, Ohio
Interim Response Action - Sediment / Test Trench Project**

HNu Reading⁽¹⁾	Action Taken
Background - 5 ppm	Level C Protection - full-facepiece air purifying respirator
5 - 50 ppm	full facepiece supplied air respirator
> 50 ppm	Stop all Site activities, implement additional engineering controls or remedial action

⁽¹⁾ Sustained organic vapor reading above background within breathing zone of workers.

9.1 Cleaning, Disinfection, and Storage

9.1.1 Cleaning and Disinfecting

All respiratory protective equipment will be washed with a detergent solution using a brush, thoroughly rinsed in clean water, and then air dried in a clean place. Care should be taken to prevent damage from rough handling.

9.1.2 Disinfection

If possible, detergents containing a bactericide should be used. Organic solvents should not be used because they may deteriorate the facepiece. If such detergents are unavailable, then the following methods may be used:

1. 50 ppm solution of chlorine may be made by adding approximately 2 tablespoons of chlorine bleach to one gallon of water. Respirators should be immersed in the solution for 2 minutes for proper disinfection.
2. 50 ppm solution of iodine may be made by adding approximately one teaspoon of tincture of iodine to one gallon of water. Respirators should be immersed in the solution for 1-2 minutes for proper disinfection.

9.1.3 Rinsing

All clean and disinfected respirators will be rinsed thoroughly in clean water at a temperature of approximately 120 degrees fahrenheit to remove all traces of detergent, cleaner, sanitizer, and disinfectant.

9.1.4 Drying

The respirators will be allowed to dry by themselves on a clean surface or hung from a horizontal wire. Care should be taken not to damage the facepiece.

9.1.5 Storage

Respiratory protective equipment will be stored so as to protect it from dust, sunlight, heat, extreme cold, excessive moisture, and damaging chemicals. Leaving a respirator unprotected can lead to damage of the working parts or permanent distortion of the facepiece, thus making it ineffective.

After cleaning and disinfecting the respirators, they will be placed individually into a resealable plastic bag until used again. They should be stored in a single layer with the facepiece and exhalation valve in a more or less normal position to prevent the facepiece from permanently distorting.

10.0 PERSONAL HYGIENE

The Enroserv project manager will ensure that the following equipment/facilities are available for the personal hygiene of the on-Site personnel:

- a. suitable disposable outerwear, gloves, respiratory protection and footwear on a daily basis for use of its on-Site personnel
- b. disposal containers for used disposable outerwear; and
- c. potable water and a suitable sanitation facility.

The portable toilet facility will be located in the CRZ at the exit of the personal decontamination line. The SSO will require that all personnel performing or supervising work within the EZ observe and adhere to the personal hygiene-related provisions of this section.

On-Site personnel found to be disregarding the personal hygiene-related provisions of this HSP will, at the discretion of the SSO, be barred from the Site.

The SSO also will enforce the following regulations for personnel actively participating in the on-Site work:

- a. on-Site personnel shall wear appropriate PPE when in the EZ;
- b. used disposable outerwear shall not be reused if deemed to be unsuitable to provide the necessary protection or if damaged, and when removed, will be placed inside disposal containers for that purpose; All PPE disposal will take place at the personal decontamination line,
- c. smoking, eating and drinking is prohibited within the EZ and the CRZ. These activities is permitted only within the area of the SZ; and

- iv) on-Site personnel leaving the EZ through the decontamination line will thoroughly cleanse their hands, face, neck area and other exposed areas before smoking, eating, drinking or using toilets and before leaving the Site.

11.0 AIR MONITORING

During the progress of active work, air quality on Site will be monitored. Monitoring will be conducted on a daily basis and additionally as required by special or work-related conditions.

The daily monitoring program will consist of measurements with a photoionization detector for volatile organic compounds. The detector will be calibrated daily according to the manufacturer's recommended procedures. The results of all calibrations will be maintained in a log book onsite. All air monitoring will be conducted in the breathing zone at each active worksite.

Oxygen deficiency and combustible levels of organic vapors are not likely to be encountered during the course of this interim action and no daily monitoring for these parameters will be conducted. If circumstances dictate, the SSO will initiate LEL and oxygen monitoring.

The SSO will record the air monitoring data from each appropriate location on the project site. If the SSO measures sustained levels in excess of those established in Section 9.0, he/she will stop all affected site activities until PPE is upgraded accordingly.

The results of the air monitoring program will be recorded in a log book which will be maintained on Site.

12.0 COMMUNICATIONS

Emergency numbers including police, fire, ambulance, hospital and appropriate Regulatory Agencies are presented in Table 12.1 and will be prominently posted near the telephone(s).

A route map to the nearest emergency medical facility is presented in Figure 12.1 and will be posted in each authorized vehicle. Prior to initiating Site activities, the emergency medical facility will be notified of Site activities to ensure preparedness to respond to any Site-related injuries.

Table 12.1

**Emergency Telephone Numbers/Directions
Summitt National Superfund Site, Portage County, Ohio
Interim Response Action - Sediment Removal**

Emergency Facility	Telephone #
General Emergency (Portage County Sheriff Dept.)	911 or (216) 296-5100
Ambulance / Deerfield Fire Dept.	911 or (216) 584-2222
Hospital (Alliance Community Hospital)	(216) 821-1000
Ohio DOH (Akron)	(216) 379-1300
Ohio EPA (District)	(216) 425-9171
Ohio EPA Local Air Agency (Regional-Akron)	(216) 375-2480
USEPA National Response Center	(800) 282-9378
State Police	(216) 297-1441
Portage County Health Department	(216) 296-9919
Deerfield Police	911 or (216) 296-5100
Poison Control Center (Youngstown)	(800) 426-2348
Poison Control Center (Akron)	(800) 362-9922
Onsite Job Trailer	(216) 947-1725
Motel (Best Western in Alliance)	(216) 821-1933

[Directions to Alliance Community Hospital]

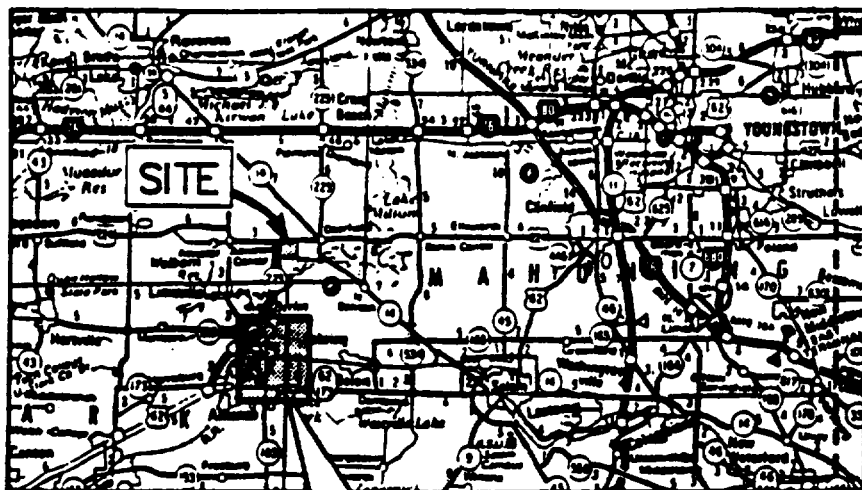
South on Rt. 225 into Alliance

In Alliance Rt. 225 becomes Union Street

Continue to follow this; at this time there will be a sign marked for HOSPITAL

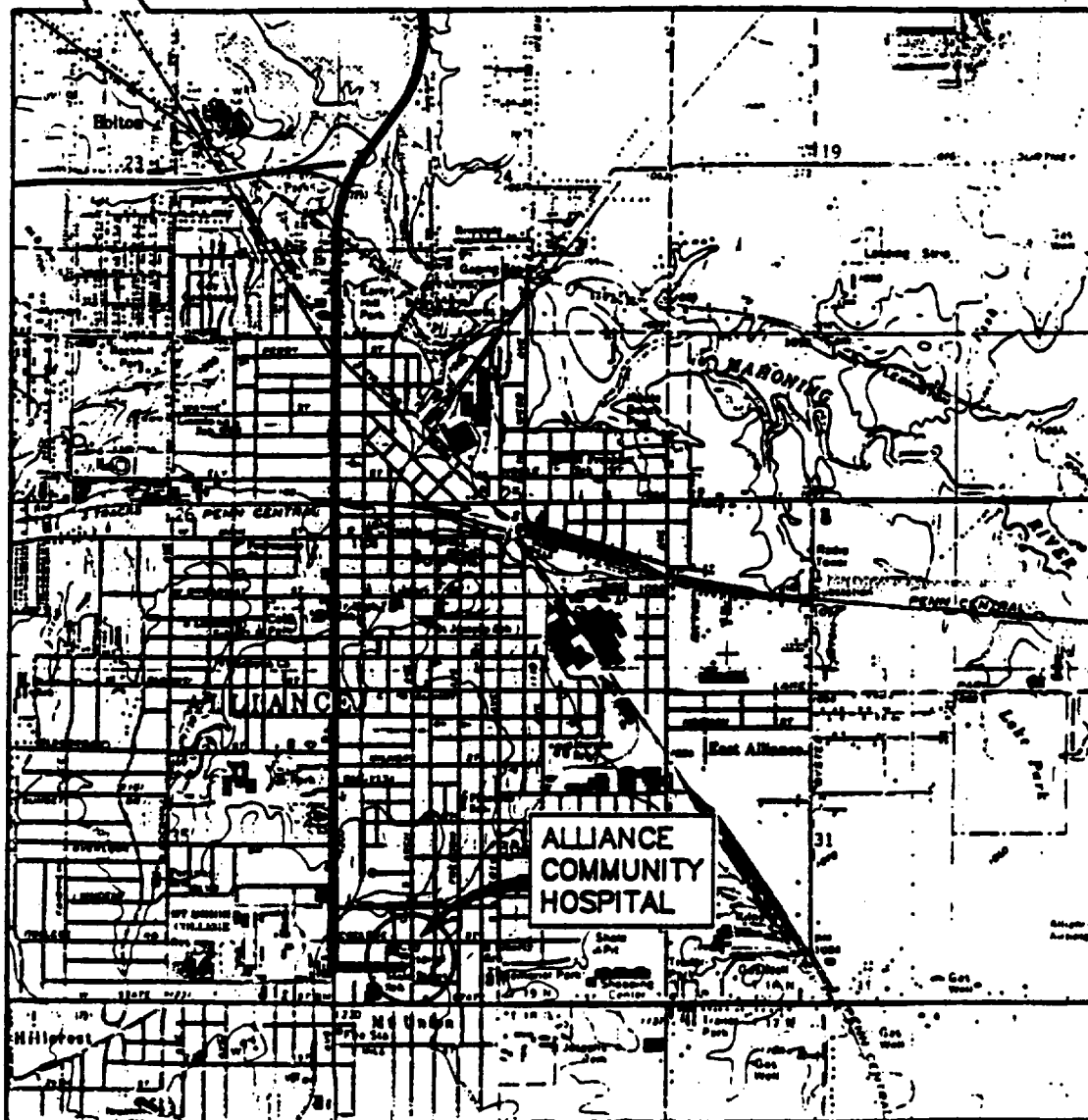
Turn Left onto College Street

Emergency entrance is on the Right



LEGEND

— EMERGENCY HOSPITAL ROUTE



SOURCES: OHIO OFFICIAL TRANSPORTATION MAP, 1987
AND USGS QUADRANGLE MAP, ALLIANCE, OHIO

12.1
figure

EMERGENCY HOSPITAL ROUTE
SUMMIT NATIONAL SUPERFUND SITE
Deerfield Township of Portage County, Ohio

CRA

13.0 EMERGENCY AND FIRST AID EQUIPMENT

Emergency safety equipment will be available for use by Site personnel and will be located and maintained on Site. The following equipment will be maintained in the CRZ.

The safety equipment will include, but is not limited to, the following:

- a. portable emergency eye wash;
- b. two 20-pound ABC type dry chemical fire extinguishers;
- c. approved first-aid kit for a minimum of 10 personnel;
- d. fire blanket;
- e. two SCBA units;
- f. portable air horn.

Additionally, a portable air horn will be carried by the SSO in the event that evacuation of the site is necessary due to high air monitoring readings or other emergencies.

14.0 EMERGENCY RESPONSE PLAN

Prior to commencing work, the SSO will coordinate the development of an emergency contingency plan. The plan is intended to provide immediate response to a serious Site occurrence such as injury, explosion or fire.

In the event of injury to on-Site personnel, the following protocol will be followed:

- a. activate Site Alarm (three short blasts on air horn);
- b. notify the SSO;
- c. contact the designated hospital and describe the injury;
- d. decontaminate personnel if possible, and administer appropriate first aid. If personnel cannot be decontaminated, alert hospital to possible problems of contamination; and
- e. transport personnel to the medical facility along a predefined route.

In the event of a significant release of toxic or hazardous vapors, the source of such vapors shall be immediately isolated, the material identified, and the SSO notified. If possible, the source of the vapors shall be controlled. All personnel shall utilize SCBA during such operations. Continuous air monitoring of the area shall commence. Appropriate regulatory and emergency agencies will be notified of the situation. A list of the phone numbers for each agency is presented in Table 12.1 which will be prominently posted near each telephone.

15.0 EQUIPMENT AND PERSONNEL DECONTAMINATION

During the initiation of the field investigative program, procedures will be implemented to reduce the amount of contact of both personnel and equipment with the waste constituents. These procedures include the following:

- a. proper work practices that would lead to minimal direct contact with potentially contaminated material (e.g. avoid contact in areas of obvious contamination, remote sampling and handling procedures, etc.)
- b. use of disposable equipment and clothing as much as practical; and
- c. encase source of contaminants (with plastic sheeting).

All equipment leaving the EZ which has contacted potentially contaminated materials will be decontaminated at the equipment decontamination station on the Site. All wash water and decontamination fluids will be collected for future disposition.

Personnel decontamination will be conducted according to the Decontamination Line Protocol sheets shown in Appendix A of this plan. Separate protocols have been prepared for decontamination of Level B and C ensembles.

16.0 CONTAMINATION MIGRATION CONTROL

All vehicles and equipment used within the EZ will be decontaminated on Site at the equipment decontamination station shown in Figure 7.1 of this plan. Decontamination, when required, will consist of the thorough cleaning, using a high pressure cleaner, of those parts of the equipment which come in contact with potentially contaminated material. A temporary decontamination pad will be constructed at the double gate entrance to the Site from US Route 224 (Figure 7.1), and will be utilized for final decontamination of vehicles and equipment prior to leaving the Site. The SSO will certify that each piece of equipment is clean or has been decontaminated prior to removal from Site.

Personnel engaged in vehicle decontamination will be outfitted with Level C protective equipment with the addition of a face shield to the hardhat.

All wash water and decontamination fluids will be collected and stored onsite for later disposition.

17.0 HEAT AND COLD STRESS

17.1 Heat Stress

Heat stress is a function of heat and humidity. A worker's susceptibility to heat stress can vary according to his/her physical fitness, perspiration rate, degree of acclimatization to hot weather, age, and diet.

Prevention

Institute the following steps to prevent overexposure of workers to heat:

1. Maintain body fluid levels by encouraging workers to drink larger amounts of water -
 - more than necessary to satisfy thirst. (1 to 2 cups every 15 to 20 minutes, or at each monitoring break). The water temperature should be maintained at 50° to 60° F. To maintain body salts, food should be liberally salted, and a 0.1% salt solution should be available as drinking water for unacclimatized workers.
2. Adjust work schedules, if necessary, providing adequate rest periods. When feasible, rotate personnel and perform work during the cooler hours of the day.
3. Provide a cool shelter (air-conditioned, preferably) or shaded areas for rest periods. The shelter should be close to the work area.
4. Provide cooling devices such as ice vests and field showers.
5. Maintain an optimal level of worker fitness by encouraging regular exercise, proper diet, etc. If possible, acclimatize workers to site conditions for several days before work begins.

17.2 Cold Stress (Hypothermia)

Cold stress is a function of cold, wetness, and wind. A worker's susceptibility to cold stress can vary according to his/her physical fitness, degree of acclimatization to cold weather, age, and diet.

Prevention

Institute the following steps to prevent overexposure of workers to cold:

1. Maintain body core temperature at 98.6°F or above by encouraging workers to drink warm liquids during breaks (preferably not coffee) and wear several layers of clothing. Wool is recommended since it can keep the body warm even when the wool is wet.
2. Avoid frostbite by adequately covering hands, feet, and other extremities. Clothing such as insulated gloves or mittens, earmuffs, and hat liners should be worn. To prevent contact frostbite (from touching metal and cold surfaces below 20°F), workers should wear anti-contact gloves. Tool handles and control bars should be covered with insulating material.
3. Adjust work schedules, if necessary, providing adequate rest periods. When feasible, rotate personnel and perform work during the warmer hours of the day.
4. Provide a heated enclosure for workers close to their work area. Workers should remove their outer layer(s) of clothing while in the shelter to allow for sweat evaporation.
5. In the event that wind barriers are constructed around an intrusive operation (such as drilling), the enclosure must be properly vented to prevent the build-up of toxic or explosive gases or vapors. Care must be taken to keep any heat source away from

flammable substances.

6. Using a wind chill chart, obtain the equivalent chill temperature (ECT) based on actual wind speed and temperature. Refer to the ECT when setting up work warm-up schedules, planning appropriate clothing, etc. Workers should use warming shelters at regular intervals at or below an ECT of 20°F. For exposed skin, continuous exposure should not be permitted at or below an ECT of -25°F.
7. Workers who become immersed in water or whose clothing becomes wet (from perspiration, rain, etc.) must immediately be provided a change of dry clothing whenever the air temperature is 35.6°F or below.
8. Maintain an optimal level of worker fitness by encouraging regular exercise, proper diet, etc. If possible, acclimatize workers to site conditions for several days before work begins.

Prevention

Personnel should be aware of the symptoms of cold stress.

If the following symptoms of systemic Hypothermia are noticed in any worker, he/she should immediately go to the warm shelter:

- heavy, uncontrollable shivering
- excessive fatigue or drowsiness
- loss of coordination
- difficulty in speaking
- frostbite (see below)

Frostbite is the generic term for local injury resulting from cold. The stages of frostbite and their symptoms are as follows:

- 1) frostbite or incipient frostbite
 - sudden blanching or whitening of the skin
- 2) superficial frostbite
 - waxy or white skin which is firm to the touch
(tissue underneath is still resilient)
- 3) deep frostbite
 - tissues are cold, pale, and solid

17.3 Monitoring

Exposure to heat will be monitored according to the following protocol:

- a. For level D activities, the techniques specified by the ACGIH will be used. TLVs for heat stress and work/rest regimens based on the WBGT index will be used.
- b. For levels C and B activities, monitoring will be conducted according to procedures established in "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities". The measurement of Adjusted Temperature will be conducted according to Table 8-10 of this document and the work/rest regimens initiated accordingly.

Exposure to cold will be monitored according to ACGIH guidelines establishing TLVs for Cold Stress. Table 5 from the ACGIH 1989-90 Threshold Limit Values Booklet will be used to establish work/no-work conditions on the Site. No site activities will be conducted if the equivalent chill temperature is in the "Increasing Danger" or "Great Danger" categories.

18.0**INCLEMENT WEATHER**

No site activities will be permitted during periods of thunderstorms and/or lightning. If these conditions arise during work, all site workers should proceed to the decontamination area and exit the site.

Access to the site may be hampered by significant rainfall. The presence of runoff waters in the drainage ditch and the stability of soils on the Site where trenching is scheduled may be reason for suspending activities on the Site. The decision to conduct work on the Site in the event of significant rainfall will be made by the SSO, the Project Engineer, and the Enroserv foreman.

APPENDIX A

**Summit National Superfund Site
Interim Response Action/Sediment Removal**

TRAINING ACKNOWLEDGEMENT FORM

Please Print:

NAME: _____

ADDRESS: _____

SOCIAL SECURITY NUMBER: _____

EMPLOYER: _____

JOB SITE: _____

I have attended and understood the mandatory Site-specific initiation session for the above-referenced job site. This program referenced the following topics:

- i) known potential hazards on Site;
- ii) level of personal protection equipment required;
- iii) emergency procedures for the Site; and
- iv) the basics of the Site-specific Health and Safety Plan.

I further confirm that I have the required 40 hours of training to comply with 29CFR1910.120 and have a respirator for which I have been fit tested.

Date

Signature

Decontamination Line Protocol

LEVEL C DECONTAMINATION LINE

Station	Function	Comments	Containers Needed	Other Equip Needed
1	Equipment Drop	(also cool down area if needed)	Buckets or boxes for small tools	Plastic Drop Cloth + Containers
2	Sand Pit	Remove Surface Mat's, Oily Residue		Galvanized Tub & Clean Sand
3	Boot / Outer Glove Wash	Wash CR boots and outer gloves in soap solution; include tape		Long handled brush/galvanized or plastic wash tub.
4	Boot / Outer Glove Rinse	Water Rinse		Long handled brush, water supply, galvanized or plastic wash tub Alt: Cartridge disposal and renewal for breakthrough
5	Tape Removal	Remove ankle/wrist tape	10-20 gal trash can	
6	Outer Glove Removal	Remove Nitrile Gloves	10-20 gal trash can storage rack	trash can for disposal, rack for drying and re-use
7	Boot Removal	Remove Outer Boots	-	Stool/bench for sitting down
8	Suit Disposal	Remove tyvek suit and dispose	20-30 gal trash can	Stool./bench for sitting down
9	Inner Glove Wash	Wash latex gloves		small tub + scrub brush
10	Inner Glove Rinse	Rinse Latex gloves with water		Water Source, small tub
11	Respirator Removal	Remove facepiece, discard cart. clean in cleaning solution or with wipe	5 gal bucket with cleaning solution or wipe supply	Storage bags for respirators, fresh cartridges
12	Inner Glove Removal	Remove and discard latex gloves	5 gal bucket for glove disposal	

Decontamination Line Protocol

LEVEL B DECONTAMINATION LINE

Station	Function	Comments	Containers Needed	Other Equip Needed
1	Equipment Drop	(also cool down area if needed)	Buckets or boxes for small tools	Plastic Drop Cloth + Containers
2	Sand Pit	Remove Surface Mat's, Oily Residue		Galvanized Tub & Clean Sand
3	Boot Cover/Outer Glove Wash	Wash boot covers and outer gloves in soap solution include tape		Long handled brush/galvanized or plastic wash tub.
4	Boot Cover/Outer Glove Rinse	Water Rinse		Long handled brush, water supply, galvanized or plastic wash tub Alt: Cartridge disposal and renewal for breakthrough
5	Tape Removal	Remove ankle/wrist tape	10-20 gal trash can	
6	Boot Cover Removal	Remove/discard boot covers	10-20 gal trash can	Stool/bench for sitting down
7	Outer Glove Removal	Remove Nitrile Gloves	10-20 gal trash can	trash can for disposal, rack for drying and re-use
8	Boot/Suit Wash	Wash suit if needed, SCBA, gloves Sponge off backpack, protect regulator with plastic baggie		Long handled brush, galvanized or plastic wash tub; sponges, baggies,
9	Boot/Suit Rinse	Rinse suit, SCBA, boots, gloves with water		galvanized or plastic tub large water supply Alt: tank change - get new tank,
10	Boot Removal	Remove CR boot		Storage for clean boots
11	SCBA Removal	Remove backpack, place on table Disconnect hose from regulator		
12	Suit Disposal	Remove coated suit and dispose	20-30 gal trash can	Stool./bench for sitting down
13	Inner Glove Wash	Wash latex gloves		small tub + scrub brush
14	Inner Glove Rinse	Rinse Latex gloves with water		Water Source, small tub
15	Respirator Removal	Remove facepiece, set aside for cleaning in cleaning solution	5 gal bucket with cleaning solution or wipe supply	Storage bags for facepieces
16	Inner Glove Removal	Remove and discard latex gloves	5 gal bucket for glove disposal	

APPENDIX B

Enroserv Respiratory Protection Plan

RESPIRATOR PROTECTION PROGRAM

Federal regulations and Company concern require the development of a written respirator program. The following program will serve as a guide for all ENROSERV locations. All employees who are assigned tasks requiring the wearing of respirators must be trained in the respirator program.

The ENROSERV Health and Safety Officer (HSO) will be responsible for maintaining the respirator program. Any questions concerning the program should be addressed to the HSO.

Respirator Selection

The HSO will be responsible for appropriate respirator selection. Only NIOSH-approved respirators will be used. Respirators will be selected according to the contaminant types and levels which may possibly be encountered.

Training

No ENROSERV employee will wear a respirator until he has been thoroughly and completely trained in proper respirator usage procedures. He must also be fit tested for the specific respirator. This training and fit testing will be documented and signed by the employee.

Fit Testing

Every employee will be fit tested for the specific type of respirator in use. This fit testing will consist of exposure to a test atmosphere, such as irritant smoke, ammonia or isoamyl acetate. Additionally, the employee will be responsible for conducting a positive and negative fit test each time the respirator is donned.

Inspection, Cleaning and Maintenance

Each employee will be responsible for his own respirator. Respirators will be inspected prior to and after usage. Respirators will be cleaned at the end of each shift. Employees are responsible for maintenance of their own individual air-purifying respirators.

Only employees who have completed the appropriate training courses may perform maintenance on supplied-air respirators.

The HSO should be consulted for any necessary information on respirators inspection, cleaning or maintenance.

Respirator Storage

Respirators must be stored in a clean area which is not likely to be contaminated by the work in progress.

When possible, respirators should be stored in a closed container, such as a plastic bag. Respirators should not be hung from their headbands for prolonged times since this may shorten the life of the respirator headband and decrease the respirator fit and effectiveness.

Respirators should not be stored in a bent or confined position. This can cause the respirator face seal to be permanently deformed so that a proper fit cannot be obtained.

Medical Examination

The HSO will be responsible for seeing that the work area is monitored to insure that the respiratory protection equipment is adequate. Additional monitoring and industrial hygiene testing will be conducted and documented as the HSO determines necessary.

Additional Considerations

Employees cannot have any facial hair which prevents a good face seal. Employees will be clean shaven in the area of the respirator seal. NIOSH has determined that even a light stubble may adversely affect respirator fit.

Employees wearing glasses will be fitted with respirators with appropriate eyeglass holders.

No employee will enter any IDLH atmosphere without a safety watch. The safety watch will be equipped with the same level of personal protective equipment as the employee in the IDLH atmosphere. The employee and safety watch will maintain visual or audible contact at all times.

RESPIRATORY PROTECTIVE EQUIPMENT AND TRAINING

I have received training in the proper usage of the following respiratory protective equipment and in the Company's written respiratory program:

Training has included (initial and date appropriate areas):

- | | |
|---------------------------------|---|
| 1) Written Procedures _____ | 7) Maintenance _____ |
| 2) Respirator Selection _____ | 8) Storage _____ |
| 3) Respirator Limitations _____ | 9) Medical Requirements _____ |
| 4) Fit Testing _____ | 10) ENROSERV Information Contacts _____ |
| 5) Cleaning _____ | (Supervision or HSO) _____ |

6) Inspection _____

11) Wearing the Respirator in a
Test Atmosphere _____

I have been trained and fitted with the following respirators
(initial and date appropriate areas):

- 1) Survivair Half-Face _____
- 2) Survivair Full-Face _____
- 3) Survivair In-line Air _____
- 4) Survivair SCBA _____
- 5) Other (List) _____

I have been provided with a copy of the Company's Respiratory
Protection Program. _____

I have read and understand this training form and know where
to go or who to ask for additional information.

Signed _____

Date _____

APPENDIX C

**RESULTS OF AIR MONITORING
SEDIMENT REMOVAL INTERIM RESPONSE ACTION
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO**

QAS Project # 691424

10-22-55 *debb*

Site: Summit National Site

Client: Enersaver

Notes By: JRC



22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS

<u>Date</u>	<u>Location</u>	<u>Time</u>	<u>Background</u>	<u>Site</u>	<u>Net (gm)</u>
<u>HMU Readings</u>					
9/30/91	No HMU Readings	Due to No Site Activities.			
10/1/91	No HMU Readings; Mobilization Activities				
10/2/91	Background in grid 2-8	1128	0.4	—	—
10/2/91	"	1649	0.6	—	—
10/3/91	No work activities in excl. zone during morning hours.				
10/3/91	NE corner of the ditch area	1455	0.2	0.2	—
10/3/91	"	1505	0.2	0.2	—
10/3/91	"	1515	0.2	0.2	—
10/3/91	"	1535	0.2	0.2	—
10/4/91	No Readings due to rain during morning hours.				
10/4/91	Outside CE2 by excavation area — background	1315	0.7	—	0.7
10/4/91	In excavation area	1415	0.6	0.6	—
10/4/91	"	1439	0.6	0.6	—
10/4/91	"	1500	0.6	0.6	—
10/4/91	"	1540	0.6	0.6	—
10/4/91	"	1600	0.6	0.6	—
10/4/91	In deen area	1630	0.6	0.6	—
10/5/91	At west ditch area	915	0.4	0.4	—
10/5/91	No other site activities after 950				
10/6/91	No site activities (Sunday)				
10/7/91	South ditch (that runs along fence line) ≈ 12a	1356	0.6	0.6	—
10/7/91	"	1424	0.8	0.8	—
10/7/91	"	1425	0.8	1.2 to 1.4	0.4 to 0.6 inches above sediment in ditch
10/7/91	South ditch ≈ 12a	1500	0.8	0.8	—

QES Proj # 691424

Client: Ennoserv

Site: Summit Natural Site

Notes By: JRE

HNu Readings

<u>Date</u>	<u>Location</u>	<u>Time</u>	<u>Background</u>	<u>Site</u>	<u>Net Count</u>
10/7/91	South ditch $\approx \beta_2$	1522	0.8	0.8	—
10/7/91	"	1600	0.8	0.8	—
10/7/91	"	1630	0.8	0.8	—
10/7/91	South ditch ≈ 163 inches above sediment	1632	0.8	0.8	—
10/7/91	South ditch $\approx \beta_2$ throughout ditch	1726	0.8	0.8	—
10/7/91	"	1729	0.8	1.0	0.2
10/7/91	"	1754	0.6	0.6	—
10/8/91	South ditch during excavation $\approx \beta_2$	921	0.6	0.8	0.2
10/8/91	"	1400	0.6	0.6	—
10/8/91	"	1430	0.8	0.8	—
10/8/91	"	1436	0.8	1.8	1.0
10/8/91	above soil + water				
10/8/91	South ditch $\approx \beta_2$	1500	0.4	0.4	—
10/8/91	"	1525	0.4	0.4	—
10/8/91	"	1615	0.4	0.4	—
10/9/91	South ditch during excavation $\approx \beta_2$	850	1.0	1.2	0.2
10/9/91	"	925	1.2	1.4	0.2
10/9/91	"	1000	1.2	1.4	0.2
10/9/91	In south impoundment $\approx \beta_2$	1330	1.0	1.2	0.2
10/9/91	"	1400	1.0	1.0	—
10/9/91	"	1410	1.0	1.0	—
10/9/91	Outside decon unit $\approx \beta_2$	1600	1.0	1.0	—
10/10/91	No site activities in morning due to heavy rain and muddy conditions				
10/10/91	Afternoon activity was decon of heavy equipment; No HNu readings				
10/11/91	South ditch during excavation $\approx \beta_2$	1315	0.8	0.8	—
10/11/91	No readings due to rain the rest of the day.				
10/12/91	No readings due to heavy humidity that was interfering with HNu sensitivity.				
10/13/91	No site activities (Sunday)				

QES Proj # 691424

Site: Summit National Site

Client: Enossee

Notes by: JF

Date	Location	HNA Readings			
		Time	Background	Site	Net (ppm)
10/5/91	Decon of Cat 215 in SE corner of ditch	737	0.8	0.8	—
10/5/91	"	1030	1.0	1.0	—
10/5/91	"	1130	1.0	1.0	—
10/5/91	During decon of Cat 931 in ditch	1440	0.6	0.6	—
10/5/91	"	1720	0.8	0.8	—

Refer to separate project note pages for 10/16/91 to 10/20/91

HNA readings.



22-141 50 SHEETS
22-142 100 SHEETS
22-143 200 SHEETS



FAX TRANSMITTAL

TO: Stephen Whillier
name

FAX #: (519) 725-1394

CRA
company

FROM: Timothy Elders
name

FAX #: (513) 866-7473

Qsource
company

DATE: 12/3/91

NUMBER OF PAGES TO FOLLOW INCLUDING COVER PAGE: 4

If you do not receive all of the pages or a problem occurs, please call: (513) 866-1711

Stephen,

Enclosed is the information you requested. According to my notes the actual sediment removal in the south impoundment began again on October 22 and finished October 25, 1991.

The HNA readings on the 22 of October were at background at 1.2 ppm and the 23 of October was 0.2 to 0.6 ppm above a background level of 0.8 and 1.0 ppm.

If you have any other questions or comments concerning this project, please do not hesitate to contact me.

Industrial Hygiene Project Notes

Project # <u>691424</u>	Client: <u>EncoServ</u>	Page <u>2</u> Of <u>3</u>
Date: <u>10/24/91</u>	Notes By: <u>JFC</u>	CC:

HNu Readings

<u>Location</u>	<u>Time</u>	<u>Background</u>	<u>Site</u>	<u>Net (var)</u>
<u>h. improvement - sediment removed 3/2</u>	<u>9:50 to 10:00</u>	<u>3.8</u>	<u>3.5 to 4.2</u>	<u>0.6 to 0.7</u>
<u>" " 3/2</u>	<u>10:40 to 11:15</u>	<u>1.2</u>	<u>1.4</u>	<u>0.2</u>
<u>" " 2 inch drill 11:40</u>	<u>11:40</u>	<u>1.2</u>	<u>1.2</u>	<u>0</u>
<u>" " 3/2</u>	<u>13:20 to 14:12</u>	<u>1.2 to 1.4</u>	<u>1.2 to 1.6</u>	<u>0.4 to 0.2</u>
<u>In case 3/2</u>	<u>18:15</u>	<u>1.2</u>	<u>1.2</u>	<u>0</u>

Note: No trenching activities today on-site.

Industrial Hygiene Project Notes

Project # <u>CA1424</u>	Client: <u>ENRO SERV</u>	Page <u>3</u> Of <u>4</u>
Date: <u>10/25/91</u>	Notes By: <u>JFE</u>	CC:

HAZARDOUS Readings

<u>Location</u>	<u>Time</u>	<u>Background</u>	<u>Site</u>	<u>Attd (ppm)</u>
In south impoundment - sediment removed = Bz before work	756	2.4	3.0	0.6
During search of UST #2 = Bz ground	815-850	2.6	3.0	0.4
" " = in trench	815-850	2.6	3.6	1.0
At fill hole of UST	845	2.6	200 to 300	197.4 to 297
During search of UST #3 = Bz ground	930 to 955	2.6	3.0	0.4
" " = in trench	930 to 955	2.6	5.0	2.4
UST #3 search = Bz ground	1000 to 1030	2.6	3.0	0.4
During search of UST #4 = Bz	1032 to 1035	2.8	3.0	0.2
" " = in trench	1032 to 1035	2.8	3.0	0.2
" " = Bz	1101 to 1125	1.8	2.2	0.4
" " = Bz	1250 to 1422	1.8 to 2.0	1.8 to 2.0	0
In south impoundment (sediment removed) = Bz	1625 to 1715	2.4	2.6	0.2
During cleanup with Hitachi 270LE	1745	2.2	2.2	0
During clean	1800	2.0	2.0	0

Industrial Hygiene Project Notes

Project # 691424

Client: Enco Serv

Page 2 Of 3

Date: 10/26/91

Notes By: JH

CC:

HNA Readings

<u>Location</u>	<u>Time</u>	<u>Background</u>	<u>Site</u>	<u>Net (gm)</u>
Decon procedures ~1 hr	850 to 950	1.8	0.8	0
On-site loading trench piles + rows ~1 hr	1130 to 1141	0.8	1.0	0.2
Decon procedures ~1 hr	1300 to 1515	0.6	0.6	0
Clean-up activities	1800	0.6	0.6	0

Note: No other activities but decon and clean-up today.